

C L A I M S :

1. A method for the preparation of specific monoclonal immunological binding molecules having binding capacity to mammal epitopes, comprising the following steps:
 - a) isolation of structures containing said epitopes to obtain an epitope preparation;
 - b) immunization of non-mammals with the epitope preparation to obtain an immune response;
 - c) immortalization of the immune response to obtain a library of immunological binding molecules;
 - d) selection of the immunological binding molecules by means of the epitopes to obtain specific monoclonal immunological binding molecules.
2. The method according to claim 1, characterized in that said monoclonal immunological binding molecules are antibodies or antibody fragments, especially single-chain antibodies (scFv).
3. The method according to claim 1, characterized in that:
 - said epitopes are expressed on the surfaces of cells, especially of trophoblasts or tumor cells; or
 - said epitopes are involved in cell-virus fusion; or
 - said epitopes are derived from endogenous antibodies.

4. The method according to claim 1, characterized in that the structures containing said epitopes are immunological binding molecules, especially antibodies or antibody fragments.

5. The method according to claim 4, characterized in that the structures containing said epitopes are immunological binding molecules obtained by a method according to claim 1.

6. The method according to claim 1, characterized in that said epitopes are oncofetal epitopes or epitopes involved in the syncytial fusion of trophoblasts.

7. The method according to claim 1, characterized in that said mammal species is selected from the group consisting of *Homo sapiens*, pets such as dogs and cats, and pests such as mice and rats.

8. A method for the identification of low molecular weight substances mimicking mammal epitopes, wherein the specific monoclonal immunological binding molecules obtained by the method according to claim 1 are used for identifying, in a library of low molecular weight substances, those having a high binding affinity.

9. The method according to claim 8, characterized in that said library of low molecular weight substances contains peptides.

10. The method according to claim 8, characterized in that said library of low molecular weight substances is a phage library.

11. An immunological binding molecule obtainable by a method according to claim 1.

12. A diagnostic agent containing at least one immunological binding molecule according to claim 11.
13. A low molecular weight substance obtainable by a method according to claim 8.
14. The low molecular weight substance according to claim 13, characterized by being a peptide.
15. The low molecular weight substance according to claim 14, characterized in that said peptide comprises from 7 to 15 amino acids.
16. A medicament containing a low molecular weight substance according to claim 13.
17. Use of the low molecular weight substance according to claim 13 for the preparation of a vaccine for contraception, for tumor treatment or for the treatment of infections.
18. A method for the preparation of specific single chain antibody fragments (scFV) having binding capacity to trophoblastic epitopes of mammals, comprising the following steps:
 - e) isolation of trophoblasts to obtain a trophoblast preparation;
 - f) immunization of chickens with the trophoblast preparation to obtain an immune response;
 - g) immortalization of the immune response to obtain a phage library;
 - h) selection of the single chain antibody fragments by means of trophoblasts to obtain specific single chain antibody fragments.

19. A method for the identification of peptides which inhibit the fusion of trophoblasts, wherein the specific single chain antibody fragments obtained by the method according to claim 18 are used for identifying, in a library of peptides, those having a high binding affinity.